Drawing Amendments

The attached sheet of drawings includes newly added Fig. 4. This sheet which includes Figs. 3 and 4, replaces the original sheet including Fig. 4. In Fig. 4, the primary electrode is shown parallel to the direction of the ion beam.

Please approve the drawing changes that are marked in red on the accompanying "Annotated Sheet Showing Changes" of Figs. 3 and 4. A formal "Replacement Sheet" of Figs. 3 and 4a is also enclosed.

Attachments: Replacement Sheet

Annotated Sheet Showing Changes

Remarks/Arguments:

Reconsideration of the application is requested.

Claims 1-54 remain in the application. Claims 1, 2, 5, 7, 9, 10, 14, 16-18, 36, and 42 have been amended. Withdrawn claims 55-62 are being cancelled herewith.

In the second paragraph on page 2 of the above-identified Office action, the drawings have been objected to under 37 CFR 1.83(a)

The Examiner stated that the primary electrode configured transversely with respect to a propagation direction of the ion beam, as recited in claims 31 and 54 must be shown or cancelled from the claims. Fig. 1 shows that the primary electrode 28 is configured transversely with respect to a propagation direction of the ion beam. Therefore, the drawings have not been amended to overcome the objection to the drawings by the Examiner. However, Fig. 4 has been added, which shows that the primary electrode is configured parallel to a propagation direction of said ion beam (claim 30).

In the second paragraph on page 3 of the above-identified Office action, claims 5, 36, and 42 have been rejected as being indefinite under 35 U.S.C. § 112.

More specifically, the Examiner has stated that there is insufficient antecedent basis for the limitation of "said side surfaces" in claims 5 and 36. Claims 5 and 36 have been amended so as to facilitate prosecution of the application. Therefore, the rejection has been overcome.

The Examiner stated that there is insufficient antecedent basis for the limitation of "said distance" in claim 42. Claim 42 has been amended so as to facilitate prosecution of the application. Therefore, the rejection has been overcome.

It is accordingly believed that the claims meet the requirements of 35 U.S.C. § 112, second paragraph. Should the Examiner find any further objectionable items, counsel would appreciate a telephone call during which the matter may be resolved. The above-noted changes to the claims are provided solely for cosmetic or clarificatory reasons. The changes are not provided for overcoming the prior art nor for any reason related to the statutory requirements for a patent.

In the penultimate paragraph on page 3 of the Office action, claims 1, 12, and 27-30 have been rejected as being fully anticipated by Yamaguchi (JP 401274350A) under 35 U.S.C. § 102.

The rejection has been noted and the claims have been amended in an effort to even more clearly define the invention of the instant application. The claims are patentable for the reasons set forth below. Support for the changes in claims 2, 14, 14, 16, and 18 of the instant application.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, *inter alia*:

a secondary electrode for producing secondary electrons when the accelerated primary electrons arrive, the secondary electrode having at least one aperture opening formed therein.

The Yamaguchi reference discloses an ion implantation method and device thereof. Yamaguchi discloses a solid target (3) for producing secondary electrons.

The reference does not show a secondary electrode for producing secondary electrons when the accelerated primary electrons arrive, the secondary electrode having at least one aperture opening formed therein, as recited in claim 1 of the instant application. Yamaguchi discloses a solid target. Yamaguchi does not disclose a secondary electrode having at least one aperture opening formed therein. This is contrary to the invention of the instant application as claimed, which recites a secondary electrode for producing secondary electrons when the accelerated primary electrons arrive, the secondary electrode has at least one aperture opening formed therein.

Since claim 1 is allowable over Yamaguchi, dependent claims 12 and 27-30 are allowable over Yamaguchi as well.

In the first full paragraph on page 4 of the Office action, claims 1, 12, and 27-30 have been rejected as being fully anticipated by Yamazaki et al. (U.S. Patent No. 5,138,169) (hereinafter "Yamazaki") under 35 U.S.C. § 102.

The Yamazaki reference discloses a method and apparatus for irradiating low-energy electrons. Yamazaki discloses a solid secondary electron emission section (107).

The reference does not show a secondary electrode for producing secondary electrons when the accelerated primary electrons arrive, the secondary electrode having at least one aperture opening formed therein, as recited in claim 1 of the instant application. Yamazaki discloses a solid secondary electron emission section. Yamazaki does not disclose a secondary electrode having at least one aperture opening formed therein. This is contrary to the invention of the instant application as claimed, which recites a secondary electrode for producing secondary electrons when the accelerated primary electrons arrive, the secondary electrode has at least one aperture opening formed therein

Since claim 1 is allowable over Yamazaki, dependent claims 12 and 27-30 are allowable over Yamazaki as well.

In the last paragraph on page 4 of the Office action, claims 15 and 19-24 have been rejected as being obvious over Yamaguchi (JP 401274350A) in view of Yamazaki (U.S. Patent No. 5,138,169) under 35 U.S.C. § 103. Yamazaki does not make up for the deficiencies of Yamaguchi. Since claim 1 is allowable, dependent claims 15 and 19-24 are allowable as well.

It is appreciatively noted from page 6 of the Office action that claims 32-54 are allowed.

It is appreciatively noted from page 6 of the Office action that claims 2-11, 13, 14, 16-18, 25, and 26 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The claims have not been amended as indicated by the Examiner, as the claims are believed to be patentable in their existing form.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-31 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel respectfully requests a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made.

Please charge any other fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Stemer LLP, No. 12-1099.

Respectfully submitted,

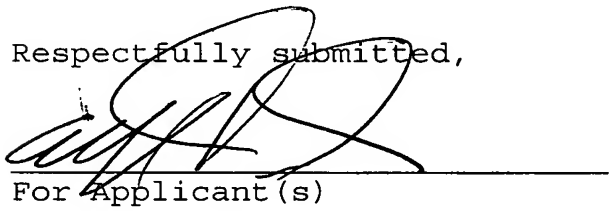

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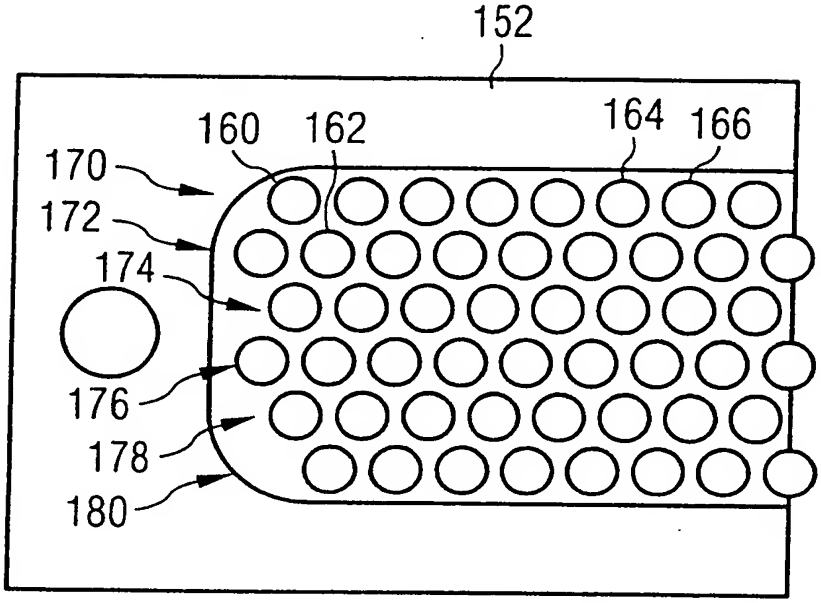
FIG 3



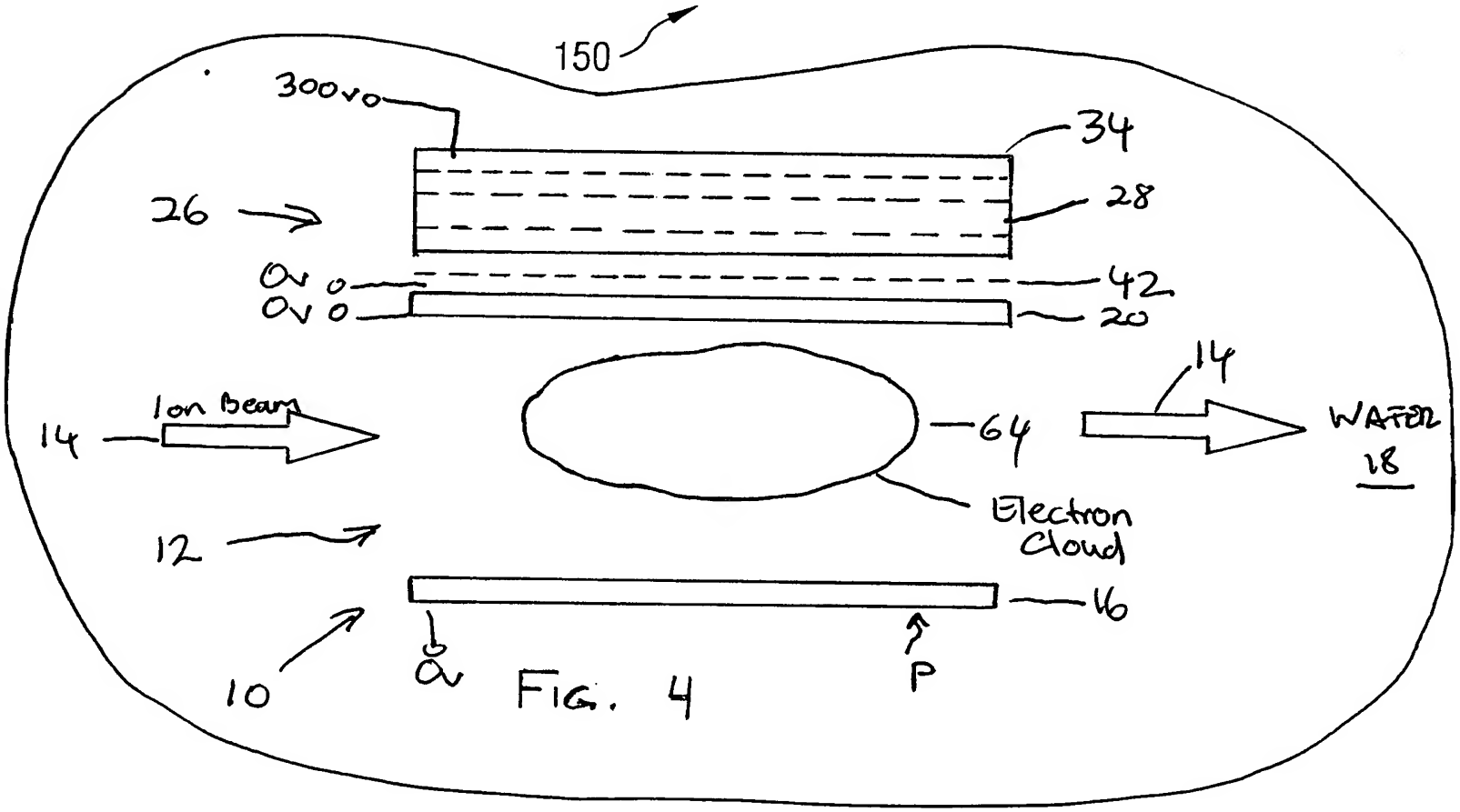


FIG. 4